



# Risk Management, Hedge Disclosure Quality and Market Performance in B3's Novo Mercado Companies

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**Abstract**— *The agency conflict is present in several aspects of management, risk management is inserted in this context because it requires agency costs related to the monitoring and control of the agent by the principal, the use of financial protection instruments, such as hedge accounting. Given its ability to preserve operations from a financial perspective, making it relevant to any business activity. In this context, the study aims to assess the relationship between risk management, disclosure of hedge financial instruments and market performance, in companies listed in the new market of [B] 3 - Brazil, Bolsa and Balcão. Thus, we conducted a documentary research in the period from 2017 to 2019. We analyzed 54 Brazilian companies classified on the Novo Mercado. The results suggest that risk management has a positive effect on the practice of hedge disclosure, however, contrary to expectations; this not repeat in the risk management relationship and the quality of accounting disclosure on organizational performance - market value. This study contributes to managers, regulators, auditors and consultants in the importance of assessing the risk management policies maintained by the company and its effect on the practice of hedge accounting.*

## I. INTRODUCTION

In the 19th century, there was the advent of a change in the ownership structure of companies to a business organization model estimated by capitalism (Medeiros & Silveira, 2017). The IPO, with distance between the owner (principal) and the manager (agent), resulted in the transition from individual to shared ownership and a new organizational model. Berle and Means (1932) are instrumental in the study of conflicts of interest resulting from this separation, with the propensity of the manager to act in his own interest to the detriment of the interests of the shareholders (Saito & Silveira, 2008).

As a formal control mechanism, corporate governance is a set of control practices and incentives designed to reduce the costs arising from the agency conflict (John &

Senbet, 1998; Child & Rodrigues, 2003; Silveira, 2004). The aforementioned practices also have their role in substantiating and managing risks to enhance the performance of organizations that, according to Borman and Motowidlo (1993), represent actions or behaviors relevant to business objectives. Among these actions, the disclosure of risk management and financial hedge instruments, allows for a reduction in the asymmetry of relevant information between the company and its stakeholders.

Santos and Coelho (2018), when analyzing the informational relevance attributed to the disclosure of information about risk factors associated with the firm and the report about the existence of risk management, concluded that the disclosure of risks affects the perception of investors. As the risks are present in practically all

sectors and business operations, their management is a method of preventing losses (Dal Magro, Filipin & Fernandes, 2015).

The adoption of hedge accounting and its disclosure, exposes in a more appropriate, transparent manner, the risks that organizations run and the management policy of the entity, both contributing to a lower volatility of results, favoring more assertive decision making by managers on projections and the derivatives used (Galdi, Barreto & Flores, 2018). The disclosure of accounting information to the market in turn affects investors' perception of risks, also influencing them in their decision-making process (Cruz & Lima, 2010).

Studies such as those by Fernandes, Silva and Santos (2008) aimed to raise the risk disclosure practices adopted in the Annual information of companies listed on the BOVESPA Novo Mercado. The study by Fernandes, Souza and Faria (2010), on the other hand, investigated whether, Brazilian companies participating in BOVESPA's Novo Mercado, satisfactorily demonstrate the risks when launching securities offers in the capital market. The research by Dal Magro et al. (2015), in turn, proposed to identify the risks disclosed and analyze the content of disclosure of risk management in highway concessionaires listed on BOVESPA based on the COSO (Committee of Sponsoring Organizations) methodology of the Treadway Commission). Sapra (2002) aimed to investigate the consequences of hedge disclosures on a company's risk management strategy.

Thus, this study aims to contribute to the expansion of the literature on the topic of risk management and hedge instruments. Thus, the research objective was elaborated, which consists of evaluating the relationship between Risk Management, disclosure of financial hedge instruments and market performance (Market to book) by companies listed in the new market of [B]3. The guiding question of the study, therefore, is: What is the relationship between risk management, the quality of disclosure of hedge financial instruments and market performance in companies listed on B3's Novo Mercado?

We believe that the survey results are important for companies in assessing one of the effects to be related to risk management practices; for shareholders in order to certify effectiveness and implications in relation to agency costs and, finally, for the market when assessing whether the companies analyzed are actually adopting methods consistent with good corporate governance and transparency practices.

## II. THEORETICAL BACKGROUND AND RESEARCH HYPOTHESIS

In the modern company, the separation of ownership from control, now dispersed, is related to the general problem of agency (Jensen & Meckling, 1976). The divergence of interests between the interested parties generates agency costs, implying a reduction of the principal's interest because of the agent's action. Second, Jensen and Meckling (1976) costs are divided into monitoring, bonding and residual losses.

Among the difference in interest between the principal and the agent is the risk aversion problem. The shareholder, given the possibility of diversifying his investments, may not be against exposure to risks in a particular company, since the diversification itself already tends to protect them from an unexpected result. On the other hand, the agent tends to minimize his own risks (loss of employment, decrease in his prestige in the market) instead of taking risks in the quest to maximize the company's value. However, the theory of the Agency demonstrates the importance of a balanced relationship and agreement between the principal and the agent with the common direction of their interests and objectives (Cardoso, Mário & Aquino, 2007).

As a control and management practice aiming to reduce the costs arising from the agency conflict, risk management is gaining importance in the business environment. One finding is the relevance given to market risk management, which, from just one element of investment portfolio management, makes it a primary tool in cash flow management. Thus, any company in which its activities are subject to price variations, especially those that operate in activities that have the possibility of using financial instruments for protection, such as hedge (Fernandes et al., 2008).

The expectation about risk management is that it will be able to identify and reduce elements that may enhance possible negative effects on the equity of firms (Santos & Coelho, 2018). When companies present their report to the market, support their stakeholder investment decisions, enhancing business success opportunities (Solomon, Solomon, Norton, & Joseph, 2000). The study by Mapurunga (2011) concludes as one of the results of his research, that Profit is positively associated with the disclosure of information dealing with derivative financial instruments.

However, studies such as Fernandes et al. (2008) and Fernandes et al. (2010) concluded, respectively, when analyzing companies from Bovespa's Novo Mercado (B3) that organizations have relatively low levels of disclosure about risk management. In both studies, the authors

evidence the need to improve the quality of information for investors. The research by Dal Magro et al. (2015), when studying the disclosure of risks in the highway concessionaires listed on the Bovespa, found that the risks when disclosed by the observed companies, followed a certain homogeneity related to disclosure and also to the content of what was disclosed for them. In this way, we elaborated the first research hypothesis:

H1: There is a relationship between risk management and market performance in companies listed in the new B3 market.

With the frequent changes in the market because of financial crises caused by the lack of adequate management of financial instruments, hedge accounting and used for disclosure and control of these operations. When practicing hedging in Brazil, companies must present in the notes and financial statements the instrument used, the object of the operation and its effectiveness.

The term hedge relates to protection and resides in the structuring and contracting of financial instruments or in the alignment of commercial operations, safeguarding companies and investors from possible risk of losses related to changes in foreign currency values. For Silva (2003), the result for a given period is not affected by these factors, but results from operational causes. Hedge relationships are of three types: fair value hedge, cash flow hedge and net investment hedge in operation abroad and with its accounting it would be possible to reduce the instability of the accounting results of a business.

The companies that adhere to the "Novo Mercado", according to B3 - Brasil, Bolsa, Balcão (2017), are the most transparent and with the highest degree of corporate governance and additional disclosure in relation to what is required by the regulator. To compose it, companies undertake to follow a set of rules that protect the minority investor through a contract and bylaws reform (Dubeux, 2001). Such rules ensure greater security for shareholders and positively influence the valuation and liquidity of shares in the market. The aforementioned arguments support the choice for this segment as a sample of our research.

Toigo, Brizolla and Fernandes (2015) demonstrate that organizations that used accounting disclosure practices to expose development in risk management had the characteristics of being large, with a large shareholder concentration and with the capital structure made up of foreign investors. They also found that the companies did not have superior results (ROA - Return on Assets) for carrying out hedge accounting and also that a high indebtedness index, low current liquidity, presence of institutional investors and a greater number of external

members on the board of management are factors that add little to the adoption of hedge accounting.

The study by Sousa (2014), which aimed to investigate whether, after companies joined the differentiated segments of corporate governance at BM & FBOVESPA, such as Novo Mercado, they obtained considerable changes in their market values, concluded that this change did not result in significant impacts. Even so, the author believes that the implementation of governance practices contributes to the improvement of a better business structure and to a higher dynamic of its activities, which, eventually, will allow the increase of organizational efficiency and the reduction of risks, resulting in a better assessment of companies by investors and the market. Fernandes, Dias and Cunha (2010) also found that, statistically, after adhering to BM & FBOVESPA's corporate governance levels, the companies in the sample had no changes in market value and nor in performance.

In this sense, we elaborate the second and third research hypothesis:

H2: There is a relationship between risk management and the quality of disclosure of financial hedge instruments in companies listed in the new market of B3.

H3: There is a relationship between quality disclosure of hedge financial instruments and market performance in companies listed on B3's new market.

### III. METHODOLOGY

#### Population and Research Sample

We work with the research population composed of public companies listed in Brazil, Bolsa, Balcão (B3), listed on the new market, and the sample is 54 companies. The data collection period was from 2017 to 2019, resulting in 162 observations (balanced data). Financial companies did not compose the sample, due to the sector having its own system of accounting standards that differentiates it from other sectors. Still, the sample includes companies that presented the necessary data to operationalize the study variables. Table 1 presents the total sample and the list of companies by sector with information available for analysis.

Table 1 - Sample of the survey segregated by sector of activity and number of companies per year

Sector	Companies	%
Real Estate	9	16.67
Basic Consumption	7	12.98
Discretionary Consumption	12	22.22
Energy	4	7.40
Industry	7	12.96
Health	3	5.55

Materials	4	7.41
Communication Services	3	5.55
Public Utility Services	3	5.55
Information Technology	2	3.71
<b>Total</b>	<b>54</b>	<b>100</b>

Source: Research data.

As shown in Table 1, the sectors that presented the greatest representativeness in the analyzed sample are those of discretionary consumption (22.23%), followed by real estate (16.67%) and basic consumption (12.98%). The data collected in B3 and Refinitiv Eikon (Former Thomson) are those related to the research variables, as shown in Table 2.

Table 2 - Research variables

	Variables / Definition	Formula	Collect	Authors
Dependent variable	Quality of Hedge Disclosure (QHD)	Checklist according to Table 3	B3 Financial Statements	Adapted according to CPC 40 requirements (R1)
	Market-to-book (MTB)	<u>Market Value</u> <u>Net worth</u>	Refinitiv Eikon	Sousa (2014)
Independent variables	Risk management (RM)	Companies with risk management committee, CRO and risk management council, as disclosed in the respective reference reports	B3 FRE * Internal risk and control management report	Santos & Coelho (2018)
Control Variables	Size (SI)	Total asset logarithm		Rosas, Leite & Portugal (2018)
	Sales growth (SA)	<u>Sales<sub>t</sub> - Sales<sub>t-1</sub></u> <u>Sales<sub>t-1</sub></u>		Neto et al. (2019)
	Regulated Market (RE)	Regulated sector Dummy 1 if yes and 0 if no Dummy 1 for companies audited by Big Four and 0 otherwise	Refinitiv Eikon	Bandeira & Brito (2020)
	Big Four (BF)			Rosas et al. (2018)

Note: \* FRE - Reference Form.

Source: Prepared by the authors.

Regarding the control variables, Rosas et al. (2018) in order to determine whether determinants such as size and

debt were capable of influencing Brazilian companies in the Novo Mercado segment the adoption of Hedge Accounting, found that the size and debt were not only strong and determining factors for the adoption of hedge accounting for companies. He also verified that the presence of large auditing companies (Big Four) with their wide levels of requirements did not result in a factor of great influence for the development of hedge accounting in Brazilian companies participating in the Novo Mercado sample.

### Quality Variable of Hedge Disclosure

From the B3 website, it was possible to access the information opened in "Structured Reports" of the 54 companies belonging to the sample. The Comprehensive Income Statement, Statement of Changes in Shareholders' Equity and the Explanatory Notes were analyzed, being chosen this exercise because it is the most recent at the time of data collection.

The Checklist consists of 10 items of dichotomous responses, allowing yes or no as answers. The questions were extracted from "CPC 40 (R1)/IFRS 7 - Financial Instruments: Disclosure" (items 22 to 24) and adapted to allow the assignment of a grade. From the requirements of CPC 40 (R1) for the elaboration of the checklist, two items were excluded: 1 - the requirement to disclose "a description of any anticipated transaction in which hedge accounting was used, but which is no longer expected to occur"; 2 - the requirement to disclose "the amount that has been removed from equity during the period and included in the initial cost or other book value of a non-financial asset or non-financial liability whose acquisition or incidence has been a hedge of the anticipated operation and highly probable". Both items do not apply to the checklist as they would only be answered if the company was in these situations, and it is inappropriate to score them negatively. In addition, none of the companies analyzed were in these two situations in 2018.

Questions 7 and 10, which deal with the disclosure of the hedge ineffectiveness recognized in the result arising from cash flow hedge and net investment in foreign operations, respectively, added the expression "If not, mention the effectiveness of the hedge?". This adaptation is due to the possibility of the hedges having been highly effective and the inefficiency not recognize in the period, with no reason for a negative score, however, in the case of a highly effective hedge, the effectiveness needs to be reported. In these questions, only companies that did not recognize the ineffectiveness in the results and did not report on the effectiveness were scoring negatively. Table 3 shows the questions adapted.

Table 3 - Hedge disclosure requirements, in accordance with the requirements of IFRS 7 / CPC 40 (R1).

Requirements For The Disclosure Of Hedge Financial Instruments	
<b>QUESTIONS - Effects of Hedge Accounting on Financial Position and Performance</b>	
1	Item 22B - Do you disclose hedge instruments used (and how are they used) to protect risk exposures?
2	Item 24 - Do you disclose the nature of the risks covered separately?
3	Item 24A - Disclose separately, in table form, and by risk category for each type of hedge (fair value hedge, cash flow hedge or net investment hedge in operation abroad)?
<b>QUESTIONS - Value, Season and Uncertainty of Future Cash Flows</b>	
4	Item 23 (a) - Do you disclose the periods in which you expect cash flow to occur and when they should affect results?
5	Item 23 (c) - Do you disclose the amount that has been recognized in other comprehensive income during the period?
6	Item 23 (d) - Do you disclose the amount that has been reclassified from equity to income for the period, showing the amount included in each item in the statement of comprehensive income?
7	Item 24 (b) - Disclose the inefficiency of the hedge recognized in the result that arises from cash flow hedges? If not, does it mention the effectiveness of the hedge?
<b>ONLY FOR FAIR VALUE HEDGES</b>	
8	Item 22 - You disclose gains or losses on the hedge instrument. In fair value hedge?
9	Item 24 - You disclose gains or losses on the hedge object in fair value hedge.
<b>ONLY FOR NET INVESTMENT HEDGES IN OPERATIONS ABROAD</b>	
1	Item 24 (c) - Disclose the inefficiency of the hedge recognized in the result that results from net investment hedges in foreign operations? If not, does it mention the effectiveness of the hedge?
0	

Source: IFRS7 / CPC 40 (R1) - Financial Instruments: Disclosure. Adapted. Self-elaboration.

The responses to the checklist is obtaining through a procedure for checking the Financial Statements and the Explanatory Notes. Level questions is apply to all companies in the sample. Level 2 questions were addressed only to companies that practiced the type of hedge to which the question refers. Thus, only companies that practiced cash flow hedging answered questions 4 to 7; questions 8 and 9, only companies that practiced fair value hedging; and question 10, only those companies that hedged net investment in foreign operations. Thus, if the company practiced only net investment hedge in foreign operations, it answered 4 questions; if you only practiced

fair value hedging, you answered 5 questions; if you practiced fair value hedge and net investment hedge in foreign operations, you answered 6 questions; if you only practiced cash flow hedging, you answered 7 questions; if you practiced cash flow hedge and net investment hedge in foreign operations, you answered 8 questions; if you practiced cash flow hedging and fair value hedging, you answered 9 questions; if you practiced the three types of hedges, you answered the 10 questions.

It should be noted that the score was attributed based on the number of requirements met in relation to the total requirements required for each specific hedge operation. So that if the company used only one type of hedge operation, its score is equivalence to meeting the specific requirements of this type of hedge. At the end, we perform the simple arithmetic average of the disclosure levels; we add the company scores and divide by the number of companies in the sample.

#### Analysis of the model

After collecting the hedge disclosure and risk management quality data and the control variables, we tested H1, using the following regression model:

**Equation 1**

$$QHD_{it} = \beta_0 + \beta_1 RM_{it} + \beta_2 SI_{it} + \beta_3 SA_{it} + \beta_4 RE_{it} + \beta_5 BF_{it} + \sum \text{Effect\_fixed\_sector}_t + \sum \text{Effect\_fixed\_year}_t + \varepsilon_{it}$$

Onde:

QHD = Quality of hedge disclosure of company *i* in the period *t*;

RM = Risk management of company *i* in the period *t*;

SI = Size of company *i* in the period *t*;

SA = Sales growth of company *i* in the period *t*;

RE = Regulated Market

BF = Firm BIG FOUR.

**Equation 2**

$$MTB_{it} = \beta_0 + \beta_1 RM_{it} + \beta_2 SI_{it} + \beta_3 SA_{it} + \beta_4 RE_{it} + \beta_5 BF_{it} + \sum \text{Effect\_fixed\_sector}_t + \sum \text{Effect\_fixed\_year}_t + \varepsilon_{it}$$

Onde:

MTB = Market-to-book of company *i* in the period *t*;

**Equation 3**

$$MTB_{it} = \beta_0 + \beta_1 RM_{it} + \beta_2 SI_{it} + \beta_3 SA_{it} + \beta_4 RE_{it} + \beta_5 BF_{it} + \sum_{t=1}^T Effect\_fixed\_sector_t + \sum_{t=1}^T Effect\_fixed\_year_t + \varepsilon_{it}$$

In the tested models, we previously applied the regression to the assumptions: multicollinearity, autocorrelation of residues, normal distribution of residues and homoscedasticity. The regressions were performed by Least Squares Regression (OLS), using the Statistics Data Analysis software (Stata® 13.0), setting the year and sector and robust standard errors to capture innate and static characteristics that can affect the relationship tested in the study.

Figure 1 presents the theoretical model of the research, which highlights the relationship between risk management and hedge disclosure and organizational performance in companies in the new market.

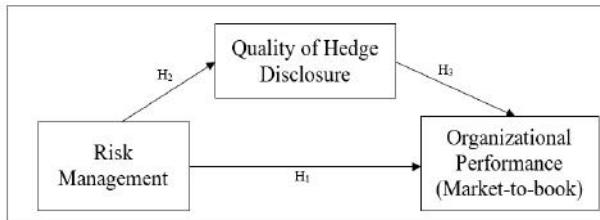


Fig.1.Theoretical research model

Source: Own elaboration.

Previous studies have suggested the effect of risk management on hedge disclosure practices. In addition, it is clear that the risk management instituted by the organization can be decisive for the company's practices and impact on the highest market performance. In conjunction with organizational management, the higher quality of hedge disclosure can imply greater organizational performance. Thus, the argument underlying the proposed in this study is that risk management and hedge accounting disclosure practices maximize organizational performance.

#### IV. PRESENTATION AND ANALYSIS OF RESULTS

Table 4 presents the descriptive statistics of the analyzed variables, with the results encompassing the total sample, presenting the data that comprised the quality of the hedge disclosure, as well as the risk management, control variables, means and deviation standard, quintile 25% and 75%.

Table 4 - Descriptive statistics of the research variables

Variables	Mean	$\sigma$	25%	75%
QHD	0.5959	0.2893	0.43	0.80
RM	0.3844	0.4862	0.33	1
SI	2.0188	2.8617	0.3834	1.9801
SA	22.4223	4.6365	21.8812	24.1513
RE	0.1111	0.2127	0	0.1561

Legend:  $\sigma$ : Standard Deviation. QHD: Quality of Hedge Disclosure. RM: Risk Management: MTB: *Market-to-book*. SI: Size. SA: Sales growth. RE: Regulated Market. Source: Research data.

We notice that the quality of hedge disclosure has an average of 0.59. Thus, we infer that in the Brazilian scenario, companies meet more than 50% of the hedge disclosure requirements in their financial reports. With regard to risk management, the average was 0.3844, which suggests low disclosure of risk management policies.

Regarding the market-to-book, an average of 2.01 is perceived. This shows that the market performance of the companies analyzed is attractive.

Regarding control variables, the average growth of companies was 0.111, showing a low variation in sales. We notice that the Size (evaluated through the asset logarithm) presented the value of 22.42, which means the sample group demonstrated, on average, an expressive participation in the composition of the total assets of the sample group.

Then, in Table 5, it describes the correlation matrix between the variables analyzed.

Table 5 - Spearman correlation

V	1	2	3	4	5	6	7
1	1.00						
2	0.03	1.00					
3	-0.06	0.18*	1.00				
4	0.02	0.11	0.25*	1.00			
5	0.05	0.10	0.05	0.11	1.00		
6	0.05	0.17*	-0.08	0.10	0.13*	1.00	
7	0.03	-0.03	0.03	0.21*	0.03	0.06	1.00

Legend: 1.MTB; 2.QHD; 3.RM; 4.SI; 5.SA; 6.RE; 7.BF

Notes: Levels of significance: \* p <0.1.

Source: Research data.

There are positive and significant correlations between the QHD and the RM (0.1822) and MR (0.1728). We noticed that RM has a positive relationship with the SI (0.2542). In turn, we noticed that the size has a positive correlation with BF (0.2105). Finally, SA has a positive correlation with RE (0.1387).

In general, the data in Table 5 demonstrate that there is no high correlation between the variables analyzed, which allows to rule out possible multicollinearity problems in the following regression models. Table 6 shows the

regressions to measure the relationship between risk management, hedge financial instruments and market performance by companies listed in the new market of [B]3 - Brazil, Bolsa and Balcão, according to Equation 1, 2 and 3.

Table 6 - Regression Result

Var.	Sign	QHD	MTB	MTB
		(H2)	(H3)	(H1)
		Coef. (Test t)	Coef. (Test t)	Coef. (Test t)
Con.	+-	1.699 (0.57)	-0.134 (-0.45)	-0.166 (-0.55)
QHD	+	-	0.001 (0.19)	-
RM	+	0.087** (1.78)	-	-0.004 (-1.09)
SI	+-	4.246* (1.68)	-0.520** (-2.67)	-0.456** (-2.51)
SA	+	8.367 (0.69)	1.178* (1.81)	1.208* (1.83)
RE	+-	-91.961* (-1.66)	14.705*** (3.55)	13.286*** (3.45)
BF	+	-3.771 (-0.75)	0.346 (0.66)	0.330 (0.64)
Sector and Year Fixed Effects		Yes	Yes	Yes
Model Significance		0.000	0.000	0.000
R <sup>2</sup>		17.56	29,07	29.52
VIF		1.15 a 1.37	1.15 a 1.25	1.15 a 1.37
DW		1.80	2.23	2,25
N		162	162	162

Legend: QHD: Quality of Hedge Disclosure. RM: Risk Management. MTB: Market-to-book. SI: Size. SA: Sales Growth. RE: Regulated Market. BF: Firm Big Four. VIF = Variance Inflation Factor; DW = Durbin-Watson; N = number of observations. Notes: Levels of significance: \* p <0.1, \*\* p <0.05, \*\*\* p <0.01.

Source: Prepared by the authors.

As shown in Table 6, for the regression models ordinary least squares (OLS) regression we robust estimators, controlling sector and year. The Durbin-Watson tests do not reveal problems of self-correlation (statistic close to 2.0 in all regressions). In addition, multicollinearity is not a problem in any of the regressions tested in the survey.

## V. DISCUSSION

In Model 1, the dependent variable is the organization's performance proxy, in the sense of expression of market value (MTB), the independent variable of interest is risk management (RM). The performance estimates of the operations are not significant

in relation to a possible influence of risk management (-0.0046; p <0.05). So hypothesis 1 (There is a relationship between risk management and market performance in companies listed on the new B3 market) we do not confirm.

In Model 2, the dependent variable is the Quality of Hedge Disclosure proxie (QHD), the independent variable of interest is risk management (GR). The estimates of the quality of hedge disclosure are significant and positive for the analyzed model, coefficient of (0.087; p <0.05). The positive and significant index shows that the best risk management practices are related to the higher quality of hedge disclosure, as determined by the H2 research hypothesis, confirming H2.

In Model 3, the dependent variable is the organization's performance proxies (MTB), the independent variable of interest is the quality of disclosure of hedge accounting (QHD). The performance estimates of the operations are not significant in relation to a possible influence of the quality of the disclosure, presenting a coefficient (0.0011). Thus, Hypothesis 3 (There is a relationship between the quality of disclosure of hedge financial instruments and the market performance of companies listed on the new B3 market) we do not confirm.

Still in Model 1 and 3, it is noted that both the company's growth and the presence of a regulated market are positively related to MTB (1.2089 and 1.1780; p <0.1) and (13.28 and 14, 70; p <0.01) respectively, which means that the greater the growth and influence of the regulated market, the better the organization's performance in terms of market value. In addition, regarding control variables, size has a significant and negative relationship in both models. These results indicate that smaller companies, as well as those from regulated sectors tend to perform better in the market.

In Model 2, it is noted that the size of the company is positively related to the QHD (4.24; p <0.1), being convergent with results found in previous surveys such as those by Toigo et al. (2015) and Pereira et al. (2017), which means that the bigger the company, the better the hedge accounting disclosure. However, the regulated sector has a negative relationship with QHD (-91.96; p <0.05), revealing that the specific rules and procedures of these markets influence the reduction in the quality of disclosure.

As the indices are not significant, it is not possible to determine that risk management and the quality of disclosure and hedge have an effect on MTB, rejecting the research hypotheses H1 and H3, for the period and companies in the sample.

This fact may be related to the low percentage of Novo Mercado companies in B3 that evidence hedge accounting operations, as shown in Table 4, the average coefficient is 0.3844 companies that performed the disclosure in the sample period. This fact relate to the degree of importance attributed to these instruments and the lack of knowledge of the effects of these operations from the perspective of investors. In addition, under aspects of Agency Theory, the results may indicate a tendency for the agent not to expand the monitoring of the principal under the organizations' financial area, which would justify the low percentage of disclosure.

## VI. CONCLUSION

The contributions of this research refer to a complex field of the international financial structure, IFRS 7 - Financial Instruments. Studies on the subject, largely, adopt an introductory approach, assessing only the degree of disclosure of the regulatory requirements related to financial instruments. This research promoted a step forward, maintaining the quantitative perspectives, but with a deeper approach, seeking to understand the influence of other proxies such as size, growth, regulated market and the very existence of risk management established or not in these companies, which can influence the disclosure of financial instruments.

The non-financial companies of the Novo Mercado of B3 established a procedure to verify compliance with the hedge accounting disclosure requirements. We use the service coefficient as a basis for carrying out hypothesis tests. We assume that the attribution of a degree of disclosure by itself is incipient and does not result in a broader understanding of the influence of other variables on the effects of disclosure of hedge accounting and on the market value of companies. In addition, as companies under the concept of risk management they can increase their market value (Market-to-Book).

However, the study obtained results that demonstrate that both risk management, evidenced by the reference reports. As for the quality of accounting disclosure, they did not influence the organization's performance for the period and segment contained in the sample. However, it revealed that growth (revenue variation) and the condition to operate in regulated markets increase the market performance of these organizations.

In addition, the survey indicated that the size of the company constitutes a factor inversely related to market performance. Small companies performed better than large companies in this market segment did. Finally, based on the objective of the study, it was found that despite the low coefficient of companies that declared to have risk

management, it has a direct relationship with the quality of disclosure of financial hedge instruments. Thus, there is a significant adoption of risk management by companies in the sample segment. This will result in an increase in the quality of disclosure of hedge financial instruments, which may reinforce the importance of these instruments in the preservation of financial resources.

As a suggestion for future research, the increase in the analyzed period may influence the tested relationships of the study. Still, we suggest the evaluation of all the companies that comprised B3, as the sample of the research would increase allowing a greater generalization of results.

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